

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-11. (Cancelled)

12. (previously presented) Synchronizing device for a shift transmission, comprising at least one outer and one inner synchro ring and at least one intermediate ring, the synchro rings and the intermediate ring in each case having conical surfaces, via which they are connected at least indirectly to one another, and at least one of the synchro rings and the intermediate ring including a metallic basic material, wherein at least one of the synchro rings and the intermediate ring include the metallic basic material which is nitride-hardened in such a way that, by process parameters being set during nitride-hardening, one of a non-metallic γ -connecting layer and a non-metallic ϵ -connecting layer is formed on a conical surface of at least one of the synchro rings and the intermediate ring.

13. (previously presented) Synchronizing device according to Claim 12, wherein the γ -connecting layer is formed which includes Fe_4N .

14. (previously presented) Synchronizing device according to Claim 12, wherein the ϵ -connecting layer is formed which includes Fe_2N or Fe_3N .

15. (previously presented) Synchronizing device according to Claim 12, wherein at least one of the synchro rings and the intermediate ring is plasma-nitride-hardened.

16. (previously presented) Synchronizing device according to Claim 12, wherein the metallic basic material of at least one of the synchro rings and the intermediate ring is a sintered material.

17. (previously presented) Synchronizing device according to Claim 12, wherein the metallic basic material of at least one of the synchro rings and the intermediate ring is a sinter-forged material.

18. (previously presented) Synchronizing device according to Claim 12, wherein the metallic basic material of at least one of the synchro rings and the intermediate ring is a hardenable steel.

19. (previously presented) Synchronizing device according to Claim 12, wherein nitriding depth is 200 to 800 μm .

20. (previously presented) Synchronizing device according to Claim 12, wherein the γ' -connecting layer and the ϵ -connecting layer is 1 to 20 μm thick.

21. (previously presented) Synchronizing device according to Claim 12, wherein the intermediate ring is arranged between the inner synchro ring and the outer synchro ring, the conical surfaces of the intermediate ring having a friction layer, and the γ' - or ϵ connecting layer being in each case located on the conical surfaces of the two synchro rings in the outer region.

22. (previously presented) Synchronizing device according to Claim 12, wherein the inner synchro ring or the outer synchro ring is firmly connected to a gearwheel, the γ' - or ϵ -connecting layer being applied to one synchro ring, and the friction layer being applied to the other synchro ring.

23. (previously presented) Synchronizing device according to Claim 13, wherein the ϵ -connecting layer is formed which includes Fe_2N or Fe_3N .

24. (previously presented) Synchronizing device according to Claim 13, wherein at least one of the synchro rings and the intermediate ring is plasma-nitride-hardened.

25. (previously presented) Synchronizing device according to Claim 14, wherein at least one of the synchro rings and the intermediate ring is plasma-nitride-hardened.

26. (previously presented) Synchronizing device according to Claim 13, wherein the metallic basic material of at least one of the synchro rings and the intermediate ring is a sintered material.

27. (previously presented) Synchronizing device according to Claim 14, wherein the metallic basic material of at least one of the synchro rings and the intermediate ring is a sintered material.

28. (previously presented) Synchronizing device according to Claim 13, wherein the metallic basic material of at least one of the synchro rings and the intermediate ring is a sinter-forged material.

29. (previously presented) Synchronizing device according to Claim 14, wherein the metallic basic material of at least one of the synchro rings and the intermediate ring is a sinter-forged material.

30. (previously presented) Synchronizing device according to Claim 13, wherein the metallic basic material of at least one of the synchro rings and the intermediate ring is a hardenable steel.

31. (previously presented) Synchronizing device according to Claim 14, wherein the metallic basic material of at least one of the synchro rings and the intermediate ring is a hardenable steel.

32. (previously presented) Synchronizing device according to Claim 13, wherein nitriding depth is 200 to 800 μm .

33. (previously presented) Synchronizing device according to Claim 14, wherein nitriding depth is 200 to 800 μm .

34. (currently amended) A synchronizing device assembly for a vehicle shift transmission, comprising:

a first synchro ring with a first friction surface, and

a second synchro ring with a second friction surface which in use selectively engages the first friction surface,

wherein said first synchro ring is formed of a metallic basic material, and

wherein said first synchro ring is nitride hardened to form one of a non-metallic γ' -connecting layer and a non-metallic ~~G~~ ϵ -connecting layer on said first friction surface.

35. (previously presented) A synchronizing device assembly according to Claim 34, wherein said first synchro ring is nitride hardened to form the non-metallic γ' -connecting layer of Fe_4N on said first friction surface.

36. (previously presented) A synchronizing device assembly according to Claim 34, wherein said first synchro ring is nitride hardened to form the non-metallic ϵ -connecting layer of Fe_2N or Fe_3N on said first friction surface.

37. (previously presented) A synchronizing device assembly according to Claim 34, wherein said first synchro ring is plasma-nitride-hardened.

38. (previously presented) A synchronizing device assembly according to Claim 34, wherein said first synchro ring is formed of a sintered material.

39. (previously presented) A synchronizing device assembly according to Claim 34, wherein said first synchro ring is formed of a sinter-forged material.

40. (previously presented) A synchronizing device assembly according to Claim 34, wherein said first synchro ring is formed of a hardenable steel.

41. (previously presented) A synchronizing device assembly according to Claim 34, wherein nitriding depth on the first synchronizing is between 200 and 800 μm .

42. (previously presented) A synchronizing device assembly according to Claim 34, wherein the connecting layer is between 1 to 20 μm thick.

43. (previously presented) A synchronizing device assembly according to Claim 34, wherein the connecting layer is 10 μm thick.

44. (currently amended) A method of making synchronizing device assembly for a vehicle shift transmission, comprising:

a first synchro ring with a first friction surface, and

a second synchro ring with a second friction surface which in use selectively engages the first friction surface,

said method comprising forming said first synchro ring of a metallic basic material, and

nitride hardening said first synchro ring to form one of a non-metallic γ' -connecting layer and a non-metallic ~~G~~ γ' -connecting ε -connecting on said first friction surface.

45. (previously presented) A method according to Claim 44, further comprising nitride hardening said first synchro ring to form the non-metallic γ' -connecting layer of Fe₄N on said first friction surface.

46. (previously presented) A method according to Claim 44, further comprising nitride hardening said first synchro ring to form the non-metallic ε -connecting layer of Fe₂N or Fe₃N on said first friction surface.

47. (previously presented) A method according to Claim 44, further comprising plasma-nitride-hardening said first synchro ring.

48. (previously presented) Synchronizing device according to Claim 20, wherein the γ' -connecting layer and the ε -connecting layer are approximately 10 μm thick.